

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

**GROUP ART UNIT 2851**

EXAMINER: Liu, Michael

APPELLANT: Coppola, Roman

SERIAL NO. 10/568656

FILED: February 15, 2006

FOR: Inflatable photographic structure

ART UNIT: 2851

MS Appeal Brief - Patents  
Commissioner of Patents and Trademarks  
Washington, D.C. 20231  
Attention: Board of Patent Appeals and Interferences

**APPELLANT'S REPLY BRIEF UNDER 37 CFR § 41.37**

This brief responds to the Examiner's Answer, dated March 20, 2009. Please charge any additional fees or credit any overpayment to our deposit account.

This brief contains the following items under the headings listed below:

- I. Grounds of Rejection to be reviewed on Appeal
- II. Argument
- III. Claim Appendix



## **I. Grounds of Rejection to be Reviewed On Appeal**

- A. Rejection of claims 1 and 6-8 under 35 U.S.C. 102(b) as being anticipated by Leary (US 6,061,969), or in the alternative, claims 1, 6-8, 10, and 11 under 35 U.S.C. 103(a) as being obvious over Leary as evidenced by Oles (US 5,946,500).
- B. Rejection of claim 4 under 35 U.S.C. 103(a) as being unpatentable over Leary in view of Huebner (US 6,343,184).
- C. Rejection of claim 9 under 35 U.S.C. 103(a) as being unpatentable over Leary in view of Siemens (US 6,282,842).
- D. Rejection of claims 12 and 13 under 35 U.S.C. 103(a) as being unpatentable over Leary in view of Sadler (4,164,829).
- E. Rejection of claims 19, 20, and 22 under 35 U.S.C. 103(a) as being unpatentable over Leary in view of Oles and further in view of Huebner.
- F. Rejection of claim 21 under 35 U.S.C. 103(a) as being unpatentable over Leary as combined as applied to claim 19, and further in view of Aptekar (US 2005/0144018).
- G. Rejection of claim 23 under 35 U.S.C. 103(a) as being unpatentable over Leary as combined as applied to claim 19, and further in view of Sadler.

## **II. ARGUMENT**

The Appellant maintains its positions as stated in the opening appeal brief, and all arguments presented therein are incorporated by reference herein.

### **A. Rejection of claims 1 and 6-8 under 35 U.S.C. 102(b) as being anticipated by Leary (US 6,061,969), or in the alternative, claims 1, 6-8, 10, and 11 under 35 U.S.C. 103(a) as being obvious over Leary as evidenced by Oles (US 5,946,500).**

First, in the Examiner's answer dated March 20, 2009, the Examiner maintained his position that the limitation - "to produce a uniform chroma key colored backdrop to a subject being photographed from inside the cavity" - of independent claim 1 is not a structural limitation. Specifically, the Examiner asserts that the above limitation "does not further define the structure



of the invention .... [r]ather, this limitation only discloses the intended use of the structure.” (Examiner Answer, at 11.) The Appellant respectfully disagrees.

Independent claim 1 recites “wherein the structure comprises a translucent wall.” This limitation is structural since the word “translucent” describes a structural feature. The specification gives breath and meaning to that limitation, by explaining that the wall must be translucent in order to allow visible light waves from the outside of the structure (either ambient light or an external lighting source) to be transmitted into the structure and thereby illuminate the subject being photographed. (Coppolla spec., at 3, lines 13-25.) This is critical since the light that is diffused through the translucent wall casts a softer shadow on the subject being photographed, as opposed to direct lighting inside the structure. Decreasing the degree of shadowing on the subject being photographed, allows the image to be better for use in a background replacement method.

In addition, independent claim 1 recites that the translucent wall “is colored to produce a uniform chroma key colored backdrop.” (*Emphasis added*.) This limitation is also structural, because a “uniform chroma key colored backdrop” necessarily means that the material has a uniformity of color, and a uniformity of surface texture, across a sufficiently large area, to be used in chroma key background replacement methods. The Leary reference describes walls as having a color pigment, but says nothing about the uniformity of pigment and texture over a sufficiently large area to be used in chroma key background replacement methods. In fact, just the opposite is true. Leary's devices have spot welds throughout the entire surface, which necessarily disrupt the uniformity of color and the uniformity of texture.

Still further, only certain colors can be effectively used in a chroma key background. Blue and green are used the most often because neither of those colors are present in skin tones of human beings. Yet there is no teaching, suggestion or motivation in Leary to use such colors. Indeed, one never sees greenhouses with uniformly green or blue walls, and therefore it is pure speculation on the part of the Examiner to suppose that one of ordinary skill in the art would read Leary to contemplate greenhouses with blue or green walls. Yes, the Examiner combines the Leary greenhouse with the Oles chromacolor, but fails to provide any teaching, suggestion or



motivation for making that combination. What the Examiner is engaging in here is pure hindsight.

In sum, the limitation “a translucent wall colored to produce a uniform chroma key colored backdrop,” defines structural limitations on the wall, Leary fails to teach those limitations, and there is no teaching, suggestion or combination in the prior for combining references in a manner that satisfies those limitations.

Second, the Appellant disagrees with the Examiner’s interpretation Leary’s teachings regarding opacity. Leary contemplates only two embodiments, (1) a translucent wall for photosynthetic plants, and (2) a light filtering (i.e., opaque) wall for light sensitive plants. (Leary spec., at C5:L33-42). Then when Leary discusses how to make the greenhouse, he contemplates only two choices, starting with (1) a clear plastic sphere and (2) a pigmented plastic sphere.” (Id. at C5/L61-62.) From those teachings it is clear that the translucent wall is clear, and the opaque wall is pigmented. In contrast, the currently pending claims recite a translucent wall that is pigmented. Leary just doesn’t teach, suggest, or motivate one of ordinary skill in the art to do that.

Third, the Examiner cites Riordan for teaching a translucent material that can be colored. But that citation cannot properly be raised on appeal because the Examiner did not cite that reference in the rejections on appeal. If the Examiner wants to bring in new references, he needs to withdraw the case from appeal, and issue a new, non-final rejection.

Finally, the Examiner states that the motivation to combine Leary with Oles is found at Leary spec., C2/L32-35. But that citation, reproduced below, has no bearing on the issue.

“the object of the present invention is to provide a dome-shaped inflatable structure which is suitable for use as a portable or temporary greenhouse for cultivating and protecting plants and animals.”

The cited passage mentions nothing about using the greenhouse for photography, or use in a background replacement method. Leary’s structure is not suitable for use in the background method since Leary fails to satisfy the limitation “a translucent wall colored to produce a uniform chroma key colored backdrop.” Moreover Oles mentions nothing about use of an



inflatable structure, nor a translucent wall, and even if Leary were modified by Oles, Leary's wall would still not satisfy the independent claim 1. Thus, the Office obviousness rejection of Leary in Oles should be withdrawn.

Claims 6-8, 10 and 11 are all allowable (among other things) by virtue of their dependency upon allowable claim 1.

**B. Rejection Of Claim 4 Under 35 U.S.C. 103(a) As Being Unpatentable Over Leary In View Of Huebner (US 6,343,184)**

The Appellant maintains the position asserted in the opening brief.

**C. Rejection Of Claim 9 Under 35 U.S.C. 103(A) As Being Unpatentable Over Leary In View Of Siemens (US 6,282,842)**

The Appellant maintains the position asserted in the opening brief.

**D. Rejection Of Claims 12 And 13 Under 35 U.S.C. 103(A) As Being Unpatentable Over Leary In View Of Sadler (4,164,829)**

The Appellant maintains the position asserted in the opening brief.

**E. Rejection Of Claims 19, 20, And 22 Under 35 U.S.C. 103(A) As Being Unpatentable Over Leary In View Of Oles And Further In View Of Huebner**

The Appellant maintains the position asserted in the opening brief.

**F. Rejection Of Claim 21 Under 35 U.S.C. 103(A) As Being Unpatentable Over Leary As Combined As Applied To Claim 19, And Further In View Of Aptekar (US 2005/0144018)**

The Appellant maintains the position asserted in the opening brief.

**G. Rejection Of Claim 23 Under 35 U.S.C. 103(A) As Being Unpatentable Over Leary As Combined As Applied To Claim 19, And Further In View Of Sadler.**

The Appellant maintains the position asserted in the opening brief.



## CONCLUSION

In its repeated rejections, the Office never set forth a proper showing of anticipation or obviousness. None of the cited art, alone or in any combination, teaches, suggests or motivates one of ordinary skill in the art to satisfy all the limitations of the independent claims. Thus, the rejections should be withdrawn.

Respectfully submitted,  
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Date: May 15, 2009

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### **VIII. Claims Appendix**

1. A photographic system, comprising:
  - an inflatable structure that defines a cavity sufficiently large to contain a plurality of people, props, and equipment; and
  - wherein the structure comprises a translucent wall that is colored to produce a uniform chroma key colored backdrop to a subject being photographed from inside the cavity.
- 2-3. (Cancelled)
4. The system of claim 1, further comprising a plurality of stage lights that illuminate the cavity from outside the structure.
5. (Cancelled)
6. The system of claim 1, wherein the inflatable structure is comprised of a plastic sheet.
7. The system of claim 6, wherein the plastic sheet is a vinyl.
8. The system of claim 7, wherein the vinyl has a thickness of at least 4 mils.
9. The system of claim 1, wherein the inflatable structure has a floor area of more than 20,000 sq. ft.
10. The system of claim 1, wherein the chroma key color is blue.
11. The system of claim 1, wherein the chroma key color is green.
12. The system of claim 1, wherein the inflatable structure has a floor portion that is continuous with the wall.
13. The system of claim 1, wherein the structure is inflated by pressurizing the cavity.
- 14-18. (cancelled)
19. A photographic method, comprising:



providing an inflatable structure that defines a cavity having a wall colored to produce a chroma key colored background;  
positioning a camera and a subject inside the cavity;  
illuminating the subject with artificial lighting transmitted through the wall; and  
photographing the thus illuminated subject against the background from the inside of the cavity.

20. The method of claim 19, wherein the subject comprises a person.
21. The method of claim 19, wherein the subject comprises a car.
22. The method of claim 19, further comprising positioning at least some photography-related equipment inside the cavity, and operating the equipment from outside the cavity.
23. The method of claim 19, wherein the step of providing the structure further comprises providing a floor portion that is an extension of the wall.